[0028] The present invention can provide an extensible file format compatible with previous, current, and future versions of an application program. The present invention can comprise including file version watermarks in an original data file of an application program. The file version watermarks can indicate various properties of the original data file. The file version watermarks can include a high version watermark, a last version watermark, a low version watermark, a creation version watermark, and an object version watermark. Each file version watermark can indicate changes, additions, or deletions made to the file. Each of the file version watermarks can also be provided for particular information in the file, such as for a particular object in the file, to indicate the versions that modified the particular information. The present invention can use the file version watermarks to determine whether the file, or particular information in the file, corresponds to the previous, active, or future versions of an application program. Accordingly, the present invention can then load or save the original data file based on a result of the determination.

[0029] **FIG. 2** illustrates various aspects of an exemplary computing environment in which the present invention is designed to operate. Those skilled in the art will appreciate that **FIG. 2** and the associated discussion are intended to provide a brief, general description of the preferred computer hardware and program modules, and that additional information is readily available in the appropriate programming manuals, user's guides, and similar publications.

[0030] **FIG. 2** illustrates a conventional personal computer **10** suitable for supporting the operation of the preferred embodiment of the present invention. As shown in **FIG. 2**, personal computer **10** operates in a networked environment with logical connections to a remote server **11**. The logical connections between personal computer **10** and remote server **11** are represented by a local area network **12** and a wide area network **13**. Those of ordinary skill in the art will recognize that in this client/server configuration, remote server **11** may function as a file server or computer server.

[0031] Personal computer **10** includes a processing unit **14**, such as "PENTIUM" microprocessors manufactured by Intel Corporation of Santa Clara, Calif. Personal computer **10** also includes system memory **15**, including read only memory (ROM) **16** and random access memory (RAM) **17**, which is connected to the processor **14** by a system bus **18**. The preferred computer **10** utilizes a BIOS **19**, which is stored in ROM **16**. Those skilled in the art will recognize that BIOS **19** is a set of basic routines that helps to transfer information between elements within personal computer **10**. Those skilled in the art will also appreciate that the present invention may be implemented on computers having other architectures, such as computers that do not use a BIOS, and those that utilize other microprocessors.

[0032] Within personal computer **10**, a local hard disk drive **20** is connected to the system bus **18** via a hard disk drive interface **21**. A floppy disk drive **22**, which is used to read or write a floppy disk **23**, is connected to the system bus **18** via a floppy disk drive interface **24**. A CD-ROM or DVD drive **25**, which is used to read a CD-ROM or DVD disk **26**, is connected to the system bus **18** via a CD-ROM or DVD interface **27**. A user enters commands and information into personal computer **10** by using input devices, such as a keyboard **28** and/or pointing device, such as a mouse **29**, which are connected to the system bus **18** via a serial port interface **30**. Other types of pointing devices (not shown in **FIG. 2**) include track pads, track balls, pens, head trackers, data gloves, and other devices suitable for positioning a cursor on a computer monitor **31**. The monitor **31** or other kind of display device is connected to the system bus **18** via a video adapter **32**.

[0033] Remote server **11** in this networked environment is connected to a remote memory storage device **33**. Remote memory storage device **33** is typically a large capacity device such as a hard disk drive, CD-ROM or DVD drive, magneto-optical drive or the like. Those skilled in the art will understand that program modules, such as application program modules **37**C and **37**D, are provided to remote server **11** via computer-readable media. Personal computer **10** is connected to remote server **11** by a network interface **34**, which is used to communicate over the local area network **12**.

[0034] In an alternative embodiment, personal computer **10** is also connected to remote server **11** by a modem **35**, which is used to communicate over the wide area network **13**, such as the Internet. Modem **35** is connected to system bus **18** via serial port interface **30**. Modem **35** also can be connected to the public switched telephone network (PSTN) or community antenna television (CATV) network. Although illustrated in **FIG. 2** as external to personal computer **10**, those of ordinary skill in the art can recognize that modem **35** may also be internal to personal computer **10**, thus communicating directly via system bus **18**. It is important to note that connection to remote server **11** via both local area network **12** and wide area network **13** is not required, but merely illustrates alternative methods of providing a communication path between personal computer **10** and remote server **11**.

[0035] Although other internal components of personal computer **10** are not shown, those of ordinary skill in the art will appreciate that such components and the interconnection between them are well known. Accordingly, additional details concerning the internal construction of personal computer **10** need not be disclosed in connection with the present invention.

[0036] Those skilled in the art will understand that program modules, such as an operating system **36**, an application program module **37**A, a browser program module **37**B, other program modules **37**N, and data are provided to personal computer **10** via computer-readable media. In the preferred computer **10**, the computer-readable media include the local or remote memory storage devices, which may include the local hard disk drive **20**, floppy disk **23**, CD-ROM or DVD **26**, RAM **17**, ROM **16**, and the remote memory storage device **33**. In preferred personal computer **10**, local hard disk drive **20** is used to store data and programs.

[0037] Program modules **37**N can contain application programs that can have files of the extensible file format according to an exemplary embodiment of the present invention. A first application program can manage an object which in turn can contain an object property list (OPL) of the extensible file format. The OPL can be stored in a contiguous block of system memory **16**. A second application program can access the OPL of the object and can perform various functions using the OPL, as will be described below.